

REMARKS

Claims 1-10 and 12-20 are pending and stand rejected. Claim 1 is amended herein to recite that the lid is connected to the container by a connecting means, wherein the lid is adapted to make closing contact with the open end; wherein the lid is provided with a flange extending outwardly and upwardly therefrom at an angle of about 90 degrees, wherein the flange is positioned within the half of the lid proximal to the connecting means, is positioned lateral to the perimeter wall adjacent to the connecting means when the lid makes closing contact with the open end, and is arranged to move towards the closed end of the container upon application of a downward mechanical force to the surface of the flange that is uppermost when the lid is closed, so as to remove the closing contact and open the container. Claim 16 is amended to recite that the flange is positioned lateral to the perimeter wall when the lid makes closing contact with the open end and extends outwardly and upwardly therefrom at an angle of about 90 degrees, wherein the flange is positioned within the half of the lid proximal to the hinge. Claim 20 is amended herein to recite that a portion of the lid adjacent to the hinge extends upwardly at an angle of about 90 degrees and is lateral to the perimeter wall of the microtube adjacent to the hinge when the lid makes closing contact with the opening, and is arranged to pivot about the hinge and move toward the closed end of the container upon application of a downward mechanical force to the uppermost surface of the upwardly extending portion of the lid, so as to remove the closing contact and open the container. In addition, claims 7 and 10 are amended to depend from claim 1. Support for these amendments can be found in original claim 6, which is cancelled herein without prejudice, and in Applicant's specification at, for example, page 3, lines 27-29; page 4, lines 7-16; page 5, lines 10-12; page 6, 18-20; and Figures 1-4. Thus, no new matter is added.

In light of these amendments and the following remarks, Applicants respectfully request reconsideration and allowance of claims 1-5, 7-10, and 12-20.

Rejection under 35 U.S.C. § 102

The Examiner rejected claims 1-10 and 12-19 under 35 U.S.C. § 102(b), alleging that they are anticipated by U.S. Patent No. 5,225,165 (Perlman). With regard to claims 1 and 16, the Examiner alleged that Perlman discloses a microtube (Figs. 1-5) comprising (a) a container

having an open end defining an opening for receiving materials to be contained (15), and a closed end (bottom of 11), the open end having a perimeter wall (implicitly disclosed); and (b) a lid adapted to make closing contact with the open end (14), wherein the lid is provided with a flange extending outwardly and upwardly therefrom (24), wherein the flange is positioned lateral to the perimeter wall when the lid makes closing contact with the open end (implicitly disclosed) and is arranged to move towards the closed end of the container upon application of a mechanical force to a surface of the flange so as to remove the closing contact, whereby the container is opened (col. 2, ll. 30-39). The Examiner then made assertions related to dependent claims 2-10, 12-15, and 17-19. In response to Applicants' argument (filed January 19, 2010) that Perlman does not disclose a flange extending upwardly and positioned lateral to the perimeter wall, the Examiner alleged that Perlman does teach such a flange, as set forth above.

Applicants respectfully disagree. Nevertheless, to further prosecution, Applicants have amended independent claim 1 to recite a microtube comprising a container having an open end defining an opening for receiving materials to be contained, and a closed end, the open end having a perimeter wall; and a lid connected to the container by a connecting means, wherein the lid is adapted to make closing contact with the open end; wherein the lid is provided with a flange extending outwardly and upwardly therefrom at an angle of about 90 degrees, wherein the flange is positioned within the half of the lid proximal to the connecting means, is positioned lateral to the perimeter wall adjacent to the connecting means when the lid makes closing contact with the open end, and is arranged to move towards the closed end of the container upon application of a downward mechanical force to the surface of the flange that is uppermost when the lid is closed, so as to remove the closing contact and open the container. Applicants also have amended independent claim 16 to recite a microtube comprising a container having an open end defining an opening for receiving materials to be contained, and a closed end, the open end having a perimeter wall; a lid connected to the container by a hinge and adapted to make closing contact with the open end; and a flange extending outwardly from the lid, wherein the flange is positioned lateral to the perimeter wall when the lid makes closing contact with the open end and extends outwardly and upwardly therefrom at an angle of about 90 degrees, wherein the flange is positioned within the half of the lid proximal to the hinge, and wherein the flange is arranged such that upon application of a downward mechanical force to the surface of the flange that is

uppermost when the lid is closed, the lid and flange pivot about the hinge so as to remove the closing contact between the lid and open the container.

Perlman fails to teach a microtube as recited in the present claims. For example, at no point does Perlman disclose a microtube having a flange that:

- 1) extends outwardly and upwardly from the lid at an angle of about 90 degrees. Rather, as depicted in Figures 1, 2, and 5 and disclosed at, for example, column 3, lines 1-3 and 64-66, the "lid extension" of Perlman is "preferably angled at 20-80 degrees elevation above a generally horizontal plane defining the lid upper surface," and "preferably . . . is angled away from the hinge, i.e., the extension lies at an obtuse angle with respect to the hinge." At no point does Perlman teach or suggest that the lid extension could or should have any other configuration, much less a configuration in which the extension extends upwardly and outwardly from the lid at an angle of about 90 degrees.
- 2) is positioned within the half of the lid proximal to the connecting means/hinge. Rather, as shown in Figures 1, 2, 4, and 5, and disclosed at, for example, column 3, lines 8-16, the lid extension of Perlman preferably "is attached within the half of the lid distal from the hinge," as "such attachment on or near the original lifting tab and relatively far from the hinge (which serves mechanically as the lid's fulcrum) functions to increase leverage" (emphasis added). Thus, Perlman clearly does not teach or suggest a lid having a flange positioned proximal to the connecting means/hinge.
- 3) is positioned lateral to the perimeter wall adjacent to the connecting means/hinge when the lid makes closing contact with the open end. As shown in Figures 1 and 2, lid extension 24 of the Perlman tube may be partially lateral to the perimeter wall when the lid is in closing contact with the open end, but, consistent with its position distal to the hinge, the lid extension is not lateral to the perimeter wall *adjacent to the connecting means*.
- 4) is arranged to move towards the closed end of the container upon application of a downward mechanical force to the surface of the flange that is uppermost when the lid is closed, so as to remove the closing contact and open the container. As

illustrated in Figure 5, lid extension 24 of Perlman is arranged to move away from the closed end of the container when the lid is opened. Further, with the Perlman tube, application of a downward mechanical force to the surface of the lid extension that is uppermost when the lid is closed will not result in removal of the closing contact and opening of the container. Rather, such a force will close the lid.

For at least the above reasons, it is clear that Perlman does not anticipate the presently claimed microtubes. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1-5, 7-10, and 12-19 under 35 U.S.C. § 102(b).

Rejection under 35 U.S.C. § 103

The Examiner rejected claim 20 under 35 U.S.C. 103(a), alleging that it is unpatentable over Perlman. In particular, the Examiner asserted that Perlman discloses a microtube (Figs. 1-5) comprising (a) a container having an open end defining an opening for receiving materials to be contained (15) and a closed end (bottom of 11), the open end having a perimeter wall (implicitly disclosed); and (b) a lid adapted to make closing contact with the open end (14), wherein the lid is provided with a flange extending outwardly and upwardly therefrom (24), wherein the flange is positioned lateral to the perimeter wall when the lid makes closing contact with the open end (implicitly disclosed) and is arranged to move towards the closed end of the container upon application of a mechanical force to a surface of the flange so as to remove the closing contact, whereby the container is opened (col. 2, ll. 30-39). The Examiner further alleged that although Perlman does not explicitly disclose a portion of the lid extends upwardly at an angle of about 90 degrees, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the flange of Perlman to be at an angle of 90 degrees. The Examiner considers this to be a matter of obvious design choice, "which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration was significant or produced unexpected results." Office Action at page 5.

Applicants respectfully disagree. Claim 20 has been amended herein to recite a microtube comprising a container having an open end defining an opening for receiving materials to be contained, and a closed end, the open end having a perimeter wall; and a lid connected to the container by a hinge and adapted to make closing contact with the opening of

the container, wherein a portion of the lid adjacent to the hinge extends upwardly at an angle of about 90 degrees and is lateral to the perimeter wall of the microtube adjacent to the hinge when the lid makes closing contact with the opening, and is arranged to pivot about the hinge and move toward the closed end of the container upon application of a downward mechanical force to the uppermost surface of the upwardly extending portion of the lid, so as to remove the closing contact and open the container.

A person of ordinary skill in the art, reading Perlman at the time of Applicants' priority date, would not have been prompted to make the presently claimed tube. This is particularly true given that at no point does Perlman suggest that a microtube should have a lid with a portion that:

- 1) extends upwardly at an angle of about 90 degrees. Again, the lid extension of Perlman is "preferably angled at 20-80 degrees elevation above a generally horizontal plane defining the lid upper surface," and "preferably . . . is angled away from the hinge, i.e., the extension lies at an obtuse angle with respect to the hinge." *See, e.g.*, Figures 1, 2, and 5, and column 3, lines 1-3 and 64-66 of Perlman. Thus, Perlman fails to suggest that a microtube lid could or should have a portion that extends upwardly and outwardly from the lid at an angle of about 90 degrees, and in fact, teaches away from such a lid.
- 2) is lateral to the perimeter wall of the microtube adjacent to the hinge when the lid makes closing contact with the opening. As depicted in Figures 1 and 2, the lid extension of Perlman may be partially lateral to the perimeter wall when the lid is in closing contact with the open end, but, consistent with its disclosed position distal to the hinge, the lid extension of Perlman is not lateral to the perimeter wall adjacent to the hinge. In fact, at no point does Perlman suggest that a microtube should have a lid with an upwardly extending portion that, when the lid is closed, is lateral to the perimeter wall adjacent to the hinge.
- 3) is arranged to pivot about the hinge and move toward the closed end of the container upon application of a downward mechanical force to the uppermost surface of the upwardly extending portion of the lid, so as to remove the closing contact and open the container. As discussed above, the lid extension of Perlman is arranged to move away from the closed end of the container when the lid is opened. Further, with the

Perlman tube, application of a downward mechanical force to the surface of the lid extension that is uppermost when the lid is closed will not result in removal of the closing contact and opening of the container. Rather, such a force will close the lid.

Applicants further note that in order to open the Perlman tube, an upward force is applied to the underside of the lid extension, in a manner similar to the mechanism for opening other known microfuge tubes that do not have a flange/lid extension. Such tubes merely have a lid that protrudes over the perimeter wall, such as "lifting tab" 18 in the Perlman figures.

Conventionally, a user's thumb is placed underneath this tab and an upward pressure is applied in order to remove the closing contact. The addition of the lid extension in Perlman means that the user's thumb, when opening the tube, is not positioned immediately adjacent to the open tube. Perlman discloses that such an arrangement can reduce the amount of contamination. *See, e.g., col. 2, ll. 14-21. See, also, col. 3, ll. 12-25,* which state that attachment of the lid extension "on or near the original lifting tab and relative far from the hinge (which serves mechanically as the lid's fulcrum) functions to increase leverage." This section goes on:

Using one's finger to apply pressure to the lower surface of a lid extension whose upper portion is angled away from the hinge, a component of the applied force is directed upward, thereby helping lift the side of the lid opposite the hinge. When the lid is unseated and then pivots backward on its hinge one's finger tends to maintain contact with the lid extension and contamination of the underside of the lid and the microcentrifuge tube is avoided.

Thus, Perlman teaches the advantages of a microtube having a lid with an extension that is positioned distal to the hinge, is angled away from the hinge (preferably at 20-80 degrees elevation above the plane of the lid surface), and is used to open the tube by applying pressure to its lower surface. There is no suggestion in Perlman that any other configuration or positioning of the lid extension/flange would be useful, and there is no motivation to rearrange or relocate the disclosed lid extension. Thus, a person of ordinary skill in the art, reading Perlman at the time of Applicants' priority date, would not have found it obvious to make the presently claimed microtube.

Moreover, in response to the Examiner's allegation that moving the flange of Perlman would have been an "obvious design choice," Applicants respectfully refer the Examiner to

MPEP § 2144.04 (VI)(C). Citing *Ex parte Chicago Rawhide Mfg. Co.* [223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)], this section of the MPEP states:

The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. *The prior art must provide a motivation or reason* for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device. (Emphasis added.)

In the instant case, there is no motivation or reason in the prior art to rearrange the Perlman tube in order to arrive at the presently recited tube. This is particularly true given the teachings of Perlman with regard to the advantages of the configuration and placement of its lid extension, as discussed above. In fact, it is only with the hindsight provided by Applicants' specification that one of ordinary skill in the art would have been motivated to make the presently claimed tube.

For at least these reasons, present claim 20 is not obvious over Perlman. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 20 under 35 U.S.C. § 103(a).

CONCLUSION

Applicants submit that claims 1-5, 7-10, and 12-20 are in condition for allowance, which action is respectfully requested. The Examiner is invited to telephone the undersigned agent if such would further prosecution.

Please charge \$1110 for the Petition for Extension of Time fee, \$810 for the Request for Continued Examination, and any other charges or credits, to deposit account 06-1050.

Respectfully submitted,

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/Elizabeth N. Kaytor/
Elizabeth N. Kaytor, Ph.D.
Reg. No. 53,103

Customer Number 26191
Fish & Richardson P.C.
Telephone: (612) 335-5070
Facsimile: (877) 769-7945